



PATENT ABSTRACTS OF JAPAN

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H01L 21/027(21) Application number: **01318245**(22) Date of filing: **07.12.1989**(71) Applicant: **NIKON CORP**(72) Inventor: **SUZUKI KAZUAKI**(54) **EXPOSURE CONTROLLER**

(57) Abstract:

PURPOSE: To optimize the quantity of exposure and to uniformize illuminance by providing a 1st light quantity adjusting means which controls the quantity of all pulse light uniformly and a 2nd light quantity adjusting means which adjusts the quantity of light, pulse by pulse.

CONSTITUTION: A dimming part 3 which controls the quantity of pulse light irradiating a reticle R is provided and the dimming rate pattern is moved every time the reticle is irradiated with pulse of the dimming part 3 and the mean light quantity value of the pulse light are predetermined according to the number of pulses and the proper quantity of exposure which are required to move and smooth an interference pattern every time the reticle is irradiated with the pulse light. Then, a 2nd light quantity control part 15 determines the target integrated quantities of light, pulse by pulse, detects the actual integrated quantity of light irradiating a wafer W to calculate the differences from the target in-

tegrated quantities of light, and adjusts the quantity of irradiation of pulse light according to the calculated differences. Consequently, the quantity of exposure can be controlled according to required accuracy and the illuminance can be uniformized.

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